

(AUTONOMOUS)

(Second Semester)

Branch - **FOODS AND NUTRITION**

**MAJOR ELECTIVE COURSE – I : FOOD BIOTECHNOLOGY**

Time: Three Hours

**Maximum: 75 Marks**

### SECTION-A (10 Marks)

**Answer ALL questions**

**ALL questions carry EQUAL marks** **(10 × 1 = 10)**

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following techniques is most commonly used for DNA sequencing? a) PCR                                  b) Southern Blotting c) Sanger sequencing              d) Gel electrophoresis	K1	CO1
	2	Show the primary function of the restriction enzyme? a) To join DNA fragments together b) To replicate DNA strands c) To cleave DNA nucleotides sequences d) To transcribe DNA in to RNA	K2	CO1
2	3	Which is NOT required for a standard PCR reaction? a) DNA polymerase                b) Primers c) DNA Template                  d) RNA transcriptase	K1	CO2
	4	Select which enzyme is used in PCR to synthesis new DNA strands? a) DNA helicase                    b) RNA Polymerase c) TAQ Polymerase                d) Ligase	K2	CO2
3	5	Spell which type of yeast is often used as a vegan friendly source of Vitamin B12? a) Brewer's yeast                  b) Baker's yeast c) Nutritional yeast                d) Wild yeast	K1	CO3
	6	Site what type of flavor nutritional yeast exhibit? a) Sweet                                b) Sour c) Cheesy or nutty                  d) Bitter	K2	CO3
4	7	Choose the prebiotic food from below? a) Lactobacillus                    b) Yogurt c) Inulin                                d) Vitamin D	K1	CO4
	8	Trace how prebiotic benefits human health? a) Directly provide energy to humans b) Improves the immune system by supporting gut microbiota c) Function as antioxidants d) Prevent all infections	K2	CO4
5	9	Relate which plant hormone is commonly used to stimulate shoot growth in tissue culture? a) Ethylene                            b) Cytokine c) Auxin                                 d) Gibberellin	K1	CO5
	10	Write which is essential component of tissue culture media? a) Soil                                  b) Agar c) Water                                d) Sand	K2	CO5

Cont.

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Discover the properties of protein expression vectors.	K3	CO1
	(OR)			
	11.b.	Determine the functions of DNA.	K3	CO1
2	12.a.	Prepare short notes on detection of protein by ELISA method.	K3	CO2
	(OR)			
	12.b.	Compute a short essay on animal cell as biopharmaceuticals.	K3	CO2
3	13.a.	Focus the preparation method of alcoholic beverages.	K4	CO3
	(OR)			
	13.b.	Illustrate short passage on the role of bacteria in meat products.	K4	CO3
4	14.a.	Examine the concept of probiotic foods.	K4	CO4
	(OR)			
	14.b.	Comment on nutritive value of sweeteners.	K4	CO4
5	15.a.	Conclude about how tissue culture is carried out in now a days.	K5	CO5
	(OR)			
	15.b.	Evaluate the role of nutrigenomics in food biotechnology.	K5	CO5

**SECTION - C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyse the basic principles of transcription in detail.	K4	CO1
2	17	Simplify the legal frame work of production of GMO and food products.	K4	CO2
3	18	Infer on manufacturing process of food yeast and its derivatives.	K4	CO3
4	19	Evaluate the applications of bacteriocins.	K5	CO4
5	20	Assess the role of engineering in organic farming.	K5	CO5

Z-Z-Z

END